

[DOCUMENT] ABSTRACT

A method for analyzing an electromagnetic field includes: a step S1 for setting up initial shapes of conductor patterns in each layer of a multilayer circuit board; a step S2 for setting up initial ports for input or output of an external signal in each conductor pattern; a step S3 for dividing two-dimensionally the multilayer circuit board into a plurality of areas; steps S4a and S4b for setting up additive ports on edges of the conductor pattern which has been created by area-division; steps S5a and S5b for setting up individual analysis conditions for the initial ports and the additive ports, respectively; steps S6a and S6b for performing an electromagnetic analysis of the multilayer circuit board by the divided area, based on the analysis conditions; and a step S8 for integrating results of the electromagnetic analysis over each of the divided areas, thereby obtaining results of the electromagnetic analysis over the whole circuit board.

By using this approach, an EM analysis of a multilayer circuit board can run quickly to significantly reduce time and cost required for designing the circuit board.